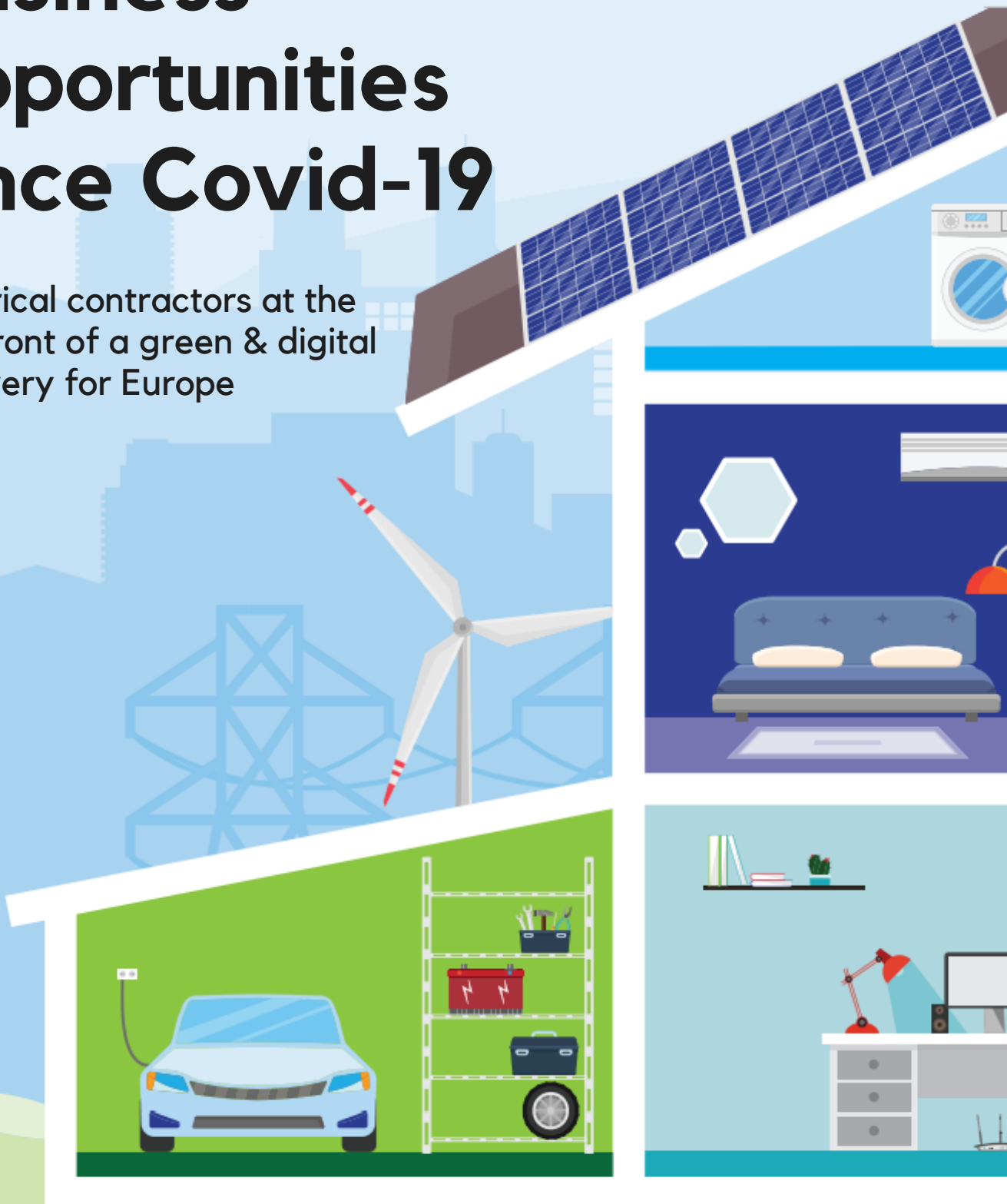


Business opportunities since Covid-19

Electrical contractors at the forefront of a green & digital recovery for Europe



Acknowledgments:

Report Team:

Julie Beaufigs, Secretary General, EuropeOn

Martin Bailey, Vice-President, EuropeOn

Federico Fucci, Policy Assistant, EuropeOn

Contributors:

Alan Wilson, Managing Director, SELECT, Scotland

Anne Valachs, Managing Director, SERCE, France

Christian Atzmüller, Secretary General, Metal-Electro-Sanitary-Mechatronic-Vehicle Technology Department, WKO, Austria

Daniel Erdmann, Technology and Business Consultant, ZVEH, Germany

Kai Puustinen, Managing Director, STUL, Finland

Laurens de Vrijer, Team Leader, Techniek Nederland

Oddvin Breiteig, Senior Adviser, NELFO, Norway

Olivier Linder, Advisor Electrotechnical Engineering, Techlink, Belgium

Pär Lundström, Skills Expert, Installatörsföretagen, Sweden

Paul Reeve, Director of CSR & Communications, ECA, England, Wales and Northern Ireland

Pedro Pereira, Managing Director, Fédération du Génie Technique, Luxembourg

Philippe Rifaux, Director General, FFIE, France

Simon Hämmerli, Director, EIT.Swiss, Switzerland

Troels Blicher Danielsen, Administrative Director, Tekniq Arbejdsgiverne, Denmark

Disclaimer:

The authors of this report share the objective to improve industry's and policy makers' understanding of the electrical contracting sector in Europe and to provide them with some key trends from the sector. Each contributor shared their knowledge to support the provision of a clear and transparent sector overview. The information included in this report should however not be treated as binding on the organizations involved.

EuropeOn Members:



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Executive Summary

The Covid-19 pandemic is triggering significant and lasting changes across all dimensions of European society: from the way we interact with each other, to our hopes for tomorrow's world; from the relevance of our jobs, to our remote working dynamics; from travelling, to education, and so on.

Electrical contractors, just as any trade, are at a turning point. The good news is that these professionals are experts at solving problems – this is what they do all day long, whether it is integrating state-of-the-art lighting systems into heritage buildings or retrofitting a family house on a limited budget.

Electrical contractors acknowledge that Covid-19 creates a systemic risk for **a trade that is comprised of nearly 2 million workers across Europe**, with a vast majority of them working for small and medium-sized enterprises. Nonetheless, they are still hopeful for the future because they know **their trade is becoming even more relevant in tomorrow's world**, provided that all public and private stakeholders take concrete action. Under this condition, the “new normal” can lead to a useful re-setting of policy, commercial, and operational strategies to enact digital and green transitions.

All sectors were taken off guard when Covid first struck, and **now is the right time to be proactive and to identify new or increased opportunities**. By contributing to making tomorrow's world greener, more comfortable, safer, and increasingly digital, electrical contractors can also expand their businesses.

It is important to emphasise that most of the leads that are explored below are already being implemented by electrical contractors in particular European regions, but there is undeniably room to develop these future-proof business opportunities further.

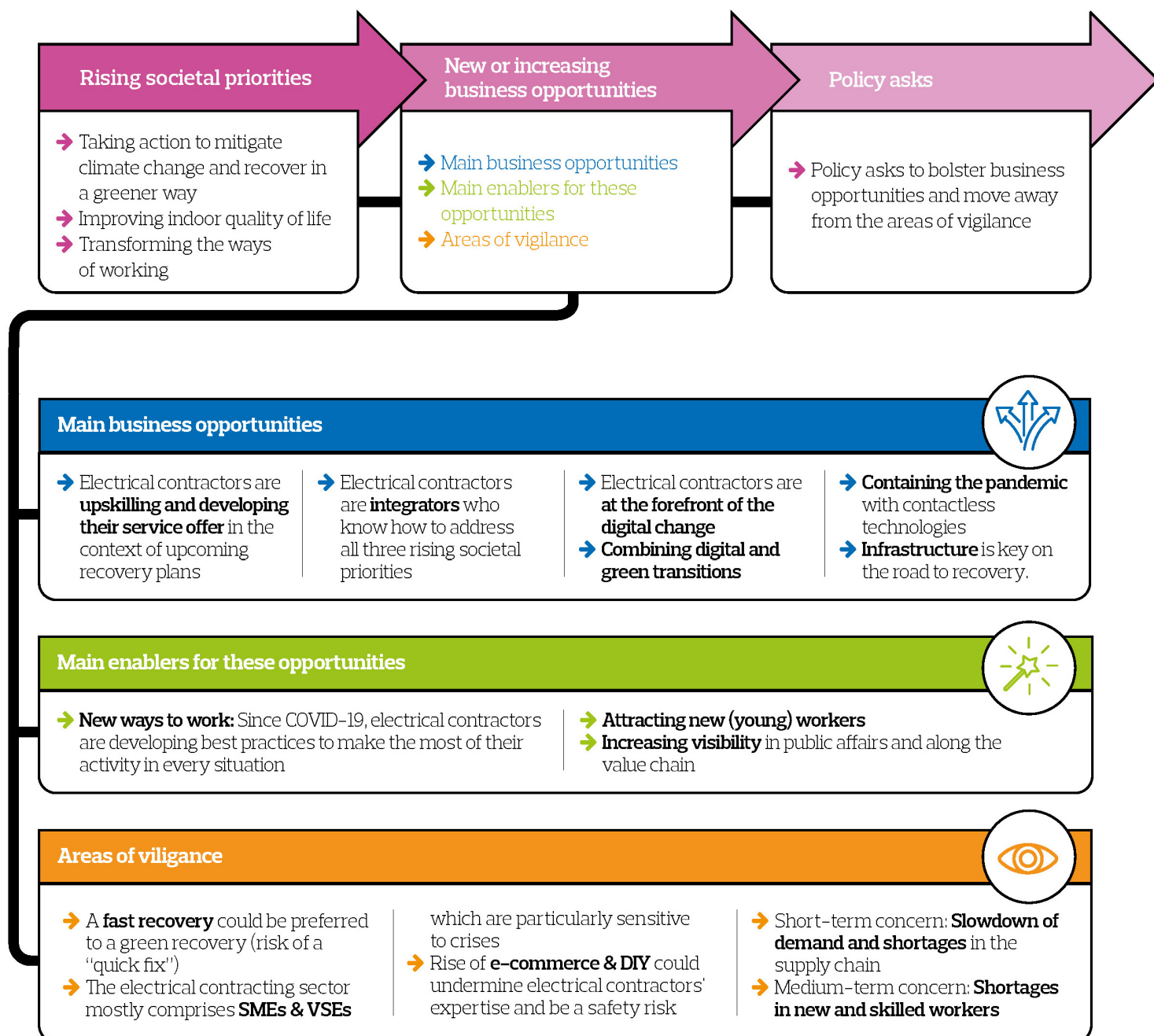
This report is organised as such:

- I. New societal priorities and the role of electrical contractors to address them:** mitigating climate change with a green recovery / improving indoor life quality / transforming ways of working.
- II. New or increased business opportunities** that electrical contractors are developing to make a positive change in the “new normal” – from services to integration, from digitalisation to decarbonisation, from consumer empowerment to contactless technologies.
- III. Areas of vigilance** that have been exacerbated since Covid, especially the risk that recovery plans favour a quick fix rather than an ambitious green and digital transition.
- IV. Policy asks to switch on the digital and green transitions for all Europeans.**

This document is relevant for:

- **Electrical contractors** looking to bounce back and strengthen their position in the value chain;
- **Actors across the entire value chain** seeking to contribute to a green and digital transition;
- **Policymakers** aiming to achieve the best possible recovery from Covid-19.

Electrical contractors at the forefront of a green & digital recovery for Europe



Introduction

EuropeOn is the European voice of the electrical contracting industry since 1954. With 1.8 million professionals in over 300.000 businesses and with a turnover of over 200 billion euros, electrical contractors provide electrical installations for buildings and infrastructures, enabling cities and citizens to take part in the Energy Transition. EuropeOn addresses energy, climate, mobility, building and skills policies. The association is campaigning in favour of Skills4Climate and #EUGreenRecovery. It is part of the Electrification Alliance, Construction 2050, the Platform for E-mobility, and the Forum for European Electrical Domestic Safety. www.europe-on.org

Electrical contractors are the professionals who are traditionally responsible for the installation, operation and maintenance of electrical systems and devices in buildings, infrastructures and, increasingly, (electro) mobility. However, this simple definition is no longer satisfactory to encompass the exciting variety of technologies and activities that they can handle, from solar panels to electrical vehicles' charging points and smart meters, from planning to advising and monitoring.

While the sector and the careers have been deeply evolving over the past few years, the Covid-19 crisis provoked a turning point. The good news is that electrical contractors are first and foremost problem-solvers. With this mindset, the European Association of Electrical Contractors, EuropeOn, has launched a collective reflection with its members to bounce back and identify new or rising business opportunities since the Covid-19 outbreak.

The new societal priorities sparked by the "new normal" situation, such as increased climate awareness among citizens, revaluation of indoor life quality or new ways of working, can be turned into new opportunities and business models, provided that the right incentives are adopted and that obstacles can be overcome. First movers acquiring green and digital skills will reap the full benefits of a European recovery based on the energy transition.

I. SOCIETAL PRIORITIES are evolving and putting more emphasis on the role of electrical contractors

At the time of writing this report, the Covid-19 pandemic has disrupted the life and projects of Europeans (and beyond) for almost a year. European societies have often acknowledged that there would be no going back to where we were and that, since change is coming, it should be a positive change.

Three societal aspirations seem particularly salient:

1.1. Taking action to mitigate climate change and recover in a greener way

Many recent events or facts demonstrate a clear societal aspiration to mitigate climate change and to implement recovery plans that will prioritise the green transition. Indeed, in the first half of 2020, while sales of cars dropped by 40% in the EU + EFTA + UK, plug-in electric cars went up by 61.5% year-over-year[1]. Several countries have also acknowledged a clear rise in purchase of solar panels and energy-efficient heat-pumps[2]. Recent French local elections were coined as a “green wave” because of the outstanding score of the Green Party[3]. Besides, many climate protests have been recently organised all around Europe despite social distancing measures.

Echoing these societal aspirations, the President of the European Parliament’s committee for environment, Pascal Canfin, gathered over 300 signatures of MEPs, Ministers, CEOs, NGOs and associations – including EuropeOn – to call for a Green Recovery[4]. Almost all 27 EU Environment Ministers signed a joint letter with a similar position[5]. Decarbonising sectors such as transport, building and energy will not only lead to a climate-neutral Europe, it will also boost job creation, new skills and hopefully a renewed prosperity.

1.2. Improving indoor quality of life

With the Covid-19 outbreak, almost every single European has experienced living under lockdown[6], bearing with distancing rules and staying at home as much as possible. Prejudices about working from home, e-learning, interacting digitally, had to be vanquished. As a consequence, “*the COVID-19 crisis has turned the spotlight on our buildings, their importance in our daily lives and their fragilities*” the European Commission declared[7]. It is more than ever essential to rely on enough light, a good supply of clean energy, ventilation, heating and – last but not least – excellent connectivity.

1.3. Transforming the ways of working

Whether it is working from home or limiting social interactions with colleagues and clients, the way people work has drastically changed, and it is bound to be a lasting change, with possible further lockdowns and more distancing rules in the medium run. Besides, many polls and surveys all around Europe show that working from home, even just once or twice a week, is positively perceived by workers. A new mindset is emerging, based on more digitalisation, new collaborative approaches and innovative ways to use office buildings. It will provide new opportunities for the trades which are willing to be flexible and up to date.

Whether it is decarbonising key economic sectors, making buildings more comfortable and smarter or improving connectivity, electrical contractors have a key role to play in the new priorities of European citizens, companies and policymakers. Therefore, many business opportunities are rising now and must be seized, to switch on a green and digital recovery.

[1] Source: ACEA. One reason is clearly the enforcement of new CO2 standards in January 2020 but it only confirms citizens’ increasing trust in electro-mobility.

[2] <https://www.essent.nl/content/overessent/actueel/index.html/forse-toename-van-vraag-naar-verduurzaming-in-coronacrisis/>

[3] <https://www.rtl.fr/actu/politique/elections-municipales-2020-raz-de-maree-vert-sur-l-ensemble-de-la-france-7800636717>

[4] https://www.spie.com/sites/default/files/groups/filiale/group/green_recovery_call_to_action_signatories.pdf

[5] Des ministres européens appellent à une relance post-Covid “verte”, L’Express, 10/04/20, [LINK](#)

[6] The only exception is Sweden, although the country has experienced social distancing and borders shutting

[7] Press release for the Renovation Wave initiative: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1835

II. BUSINESS OPPORTUNITIES and best practices for electrical contractors to switch on a green and digital recovery

Electrical contractors are in a very favourable position to contribute to addressing these three rising societal priorities while developing new business opportunities that will help them grow through the Covid-19 crisis and adapt to tomorrow's world.

2.1. Electrical contractors are upskilling and developing their service offer in the context of upcoming recovery plans

In order to be eligible for EU recovery funding, governments across Europe are drafting Recovery Plans that must be compatible with the EU's 2050 climate-neutrality objective. Besides, the EU is launching initiatives of its own, whether it is doubling (energy) renovation rates across Europe (Renovation Wave initiative), shifting to e-mobility (Strategy on Smart mobility), etc. Outside the EU, other European countries such as the UK[8], Switzerland[9] or Norway[10] are also accelerating their energy transition.

A recovery strategy based on the energy transition can accelerate electrical contractors' move beyond their traditional "installation – operation – maintenance" model. New opportunities are emerging in varied fields such as digitalisation, analysis, integration and consumer empowerment

THESE NEW TRENDS OFFER THE RARE OCCASION TO TAKE ADVANTAGE OF A "WINNER-TAKE-MOST" DYNAMIC. IT IS NOT A PHASE BUT A MEGATREND WHICH HAS ALREADY STARTED A FEW YEARS AGO AND IS NOW ACCELERATING.

Evolution of the electrical contracting sector

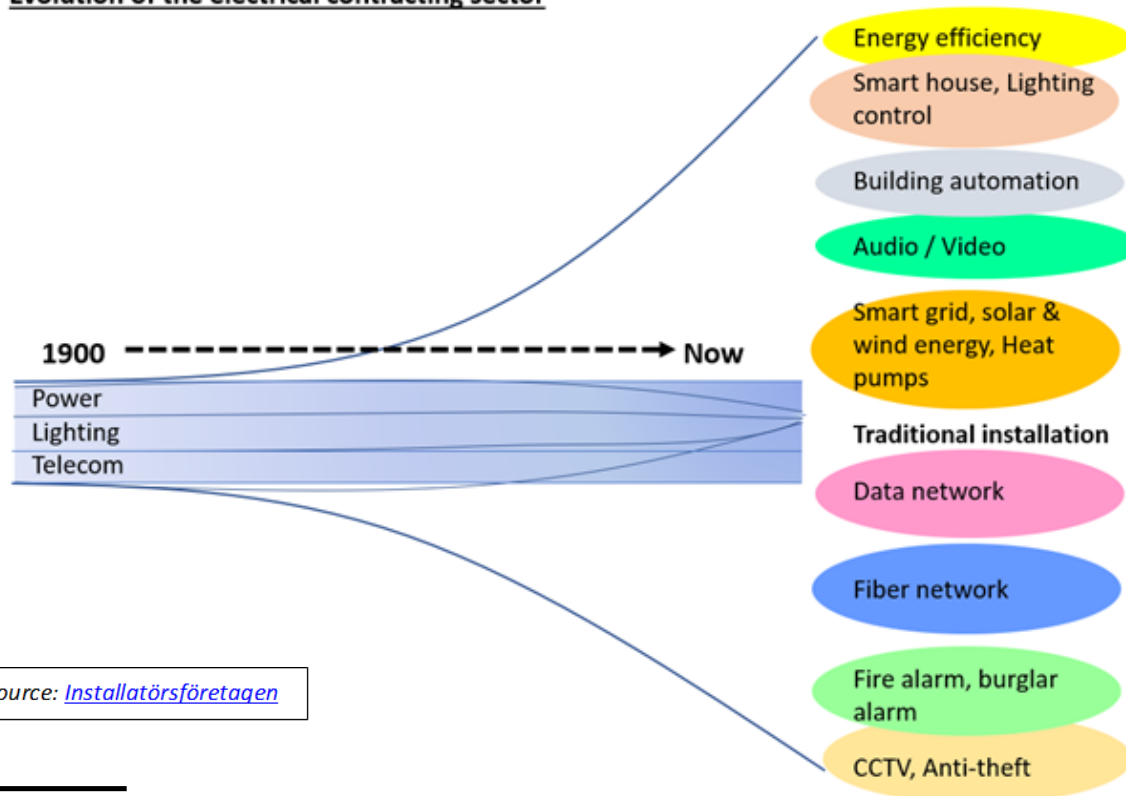


Fig. 1, source: [Installatörsföretagen](#)

[8] <https://www.gov.uk/government/news/pm-commits-350-million-to-fuel-green-recovery>

[9] <https://www.admin.ch/gov/fr/accueil/documentation/communiques.msg-id-80558.html>

[10] <https://www.regjeringen.no/en/aktuelt/norges-hovedinnlegg-under-fns-generalforsamling/id2766169/>

Skills matrix (Swedish example)

	Coordination (a)	Planning (b)	Installation (c)	Commissioning (d)	Service & maintenance (e)	Enablers (for a to e)
SEQF* 3: Basic installer (<i>montör</i>)			Assemble		Basic maintenance	
SEQF4: Installer			Install			
SEQF5: Technician (<i>Tekniker</i>)		Project planning	Install	Configuration	Performance monitoring	
SEQF6: Specialist	Develop a tailored solution Business offer	Project supervision		Cybersecurity	Sales	Analysis
SEQF7: Engineer/ Integrator	Business development Sales	Project supervision			Sales optimization, Program update	System integration, System optimization

*SEQF= Swedish Qualification Framework (adapted from the European Qualification Framework)

Fig. 2, source: [Installatörsföretagen](#)

Business opportunities for 2.1.

⚡ Electrical contractors are looking for competitive advantages by mastering the “hard” skills to install, operate, maintain and integrate clean and up-to-date technologies such as solar panels, electric heat-pumps, building and automation control systems (BACS), charging points for electrical vehicles, and power over ethernet (PoE).

- Many governments are betting on the rapid uptake of heat pumps. In Denmark, the government expects the installation of up to 400.000 heat-pumps by 2030. In Luxembourg, gas and oil boilers will be forbidden as of 2023.
- More and more stakeholders, in particular the European Parliament, are calling for a “pan-European solar rooftop programme”, in order to equip as many roofs as possible with PV[11]. Solar energy industry could host up to 4 million jobs by 2050 in Europe[12].
- The EU is pushing for e-mobility across Europe, by financially supporting the installation of 1 million public charging points by 2030[13].

⚡ Electrical contractors are acquiring “soft” skills to bring added value to clients (consulting, marketing, communication, customer service, etc.):

- Electrical contractors come at the very end of the (construction, energy and e-mobility) value chain, this is why they are in a unique position to advise end-users on the benefits they can get from green and digital technologies.
- This also means that they must have a good knowledge of the relevant public support (e.g.: public support for solar panels, energy performance targets) which will boost demand.
- Electrical contractors are developing bundles/packages and renting solutions to end-users, in their local community, bringing higher value to the contractor, as he/she offers a tailored solution to clients and provides a rare expertise.

[11] https://www.europarl.europa.eu/doceo/document/TA-9-2020-0227_EN.html

[12] SolarPower Europe and LUT University (2020): 100% Renewable Europe: How To Make Europe's Energy System Climate-Neutral Before 2050 ([LINK](#))

[13] Europe's moment: Repair and Prepare for the Next Generation – European Commission Communication (27/11/2020)

⚡ Offering services that are based on new societal priorities for B2B and public works:

- Commercial buildings and business offices have come under severe scrutiny. Electrical contractors can offer relevant solutions with smart programming to reduce energy bills (see point 2.4), contactless technologies (see point 2.5), higher connectivity, etc.
- Circularity / sustainability is a growing concern for companies wishing to improve their “Corporate Social Responsibility” and is increasingly required in public procurement[14]. Electrical contractors have a key role to play in a circular economy (re-use of cables, recycling of lightbulbs, making detachable installations, etc.).

In a recent study, McKinsey & Company explores how the disruption generated by Covid-19 is reshaping the world’s largest ecosystem: construction[15]. Among the 9 “*future industry dynamics*” they identified, 5 are particularly relevant in the current reflection:

Specialisation / Customer-centricity and branding / Investment in technology and facilities / Investment in human resources / Sustainability

2.2. Electrical contractors are integrators, providing services to address all three rising societal priorities

At the very beginning of 2020, EuropeOn’s French member FFIE[16] made a symbolic but meaningful change, moving from being the French Federation of electrical *Installers* to electrical *Integrators*. This concept of “integrators” has been quickly spreading across Europe in the past few years, to highlight the new and fast-evolving complexity of this sector, exacerbated by the green and digital transitions.

Contrary to an installer, an integrator must possess the skillset to analyse and propose a unique and cost-effective integrated solution to clients, from designing the system to the installation itself, configuration, programming and maintenance. This can be completely executed by the electrical company or partly subcontracted to other partners.

INTEGRATORS MAKE A VALUABLE CONTRIBUTION TO SOCIETIES BY OFFERING SMART AND COST-EFFECTIVE SOLUTIONS TO END-USERS.

Business opportunities for 2.2.

⚡ Electrical contractors who are able to integrate technologies in the built environment capture maximum value from their work:

- Integrators have a skillset which prevents them from depending on one technology: they master interoperability.
- To deliver a high level of performance on projects, integrators take part in the planning stage of projects.

⚡ Integrators will be the first to benefit from the rising trends of Smart Building and Smart Living (see point 2.4).

[14] By June 2022, the EU Commission will propose green public procurement criteria related to life-cycle

[15] McKinsey & Company, “The next normal in construction”, June 2020

[16] <http://www.ffie.fr/accueil/>

⚡ Integrators have a unique skillset to address post-Covid-19 use of office buildings

- Office buildings are bound to evolve in the coming months but this cannot happen without the help and advice of integrators: open space might become obsolete, more connectivity will be required, contactless technologies will be preferred in shared space, more people will work from home but meet at the office... > See Fig. 4
- With the rise of home office, a portion of office buildings will probably be turned into residential buildings, calling for deep retrofit.
- This reasoning also applies to commercial and industrial buildings.

2.3. Tomorrow's world will be digital and electrical contractors are at the forefront of the digital change

Since the Covid-19 outbreak, every aspect of our societies has been more than ever reliant on digital tools, from working from home, to e-learning and e-health. This new breakthrough will continue and even accelerate in the future, because citizens and companies are seeing its potential in terms of efficiency, comfort, collaboration and mitigation of contamination risks.

CONNECTIVITY IS CRUCIAL TO ELECTRICAL CONTRACTORS: EVEN BEFORE PROGRAMMING DIGITAL TOOLS FOR SMART HOMES AND E-MOBILITY, THEY ARE RESPONSIBLE FOR THE INSTALLATION, OPERATION AND MAINTENANCE OF FIBRE OPTICS ACROSS TERRITORIES AND IN END-USERS' PREMISES.

Business opportunities for 2.3.

⚡ Improving and expanding fibre-optic and soon 5G thanks to electrical contractors' expertise: while (semi)-lockdown and remote activities are poised to be part of the "next normal", infrastructures must be reliable to offer a sound and high-quality connectivity to European citizens.

- In Norway, the Association of Electrical Contractors (Nelfo) is advocating for a new national goal called *Enabling the Gigabit society by 2025*, so as to ensure that all citizens will benefit from high speed internet[17]. The benefits are clear: increased competitiveness for companies (whether employees work from home or the office) and a more cost-effective public sector.
- In Germany, a new State aid scheme was approved by the European Commission in November 2020 to support the deployment of very high capacity broadband networks offering speeds of 1 Gbps, with a focus on areas where the market does not provide them[18].

⚡ Electrical contractors are at the forefront of modern technologies such as power over ethernet (PoE): PoE allows for the transmission of both electricity and data with the same cable. Further, this will also allow for better communication between smart devices.

➡ EuropeOn designed a guidebook on PoE (2020), available to our member

⚡ Electrical contracting companies also have a lot to gain from becoming more digital internally! This is a major topic since most of them are SMEs, which generally have a lower score for digitalisation across Europe[19]. This will help them know their market better, communicate with their clients list, collaborate between workers, get access to e-learning and so on.

[17] <https://www.nelfo.no/>

[18] https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2132

[19] An SME Strategy for a sustainable and digital Europe, European Commission Communication (10 March 2020)

⚡ Mastering cybersecurity is key for a sound and effective digitalisation:

- Cybersecurity is still a rather new topic on which there are many competitive advantages to gain, and it will reassure clients to contract with a professional who can both programme devices and ensure their security.
- Cybersecurity is also necessary to protect electrical companies' data.

2.4. Electrical contractors empower consumers by combining digital and energy transitions

CALLING FOR A DIGITAL AND GREEN “TWIN” TRANSITION SHOWS HOW MUCH THESE TWO TARGETS ARE INTERTWINED... OR EVEN INTEGRATED, THANKS TO ELECTRICAL CONTRACTORS. THIS IS FOR EXAMPLE MADE VERY CLEAR IN THE MOTTO OF OUR FRENCH MEMBER SERCE: “COMPANIES OF THE ENERGY AND DIGITAL TRANSITIONS”[20].

An illustration of this is energy management: digital tools enable citizens to monitor, programme and automatise their energy consumption and production, turning consumers into “prosumers”. Conversely, the energy produced from renewable and green sources can then be used to power fibre optic and, thus, digitalisation.

Business opportunities for 2.4.

⚡ Electrical contractors are positioned at the end of the value chain and thus have a fundamental role to convert consumers into prosumers. They are in the best position to advise clients on the small to deep changes they can do to improve energy management and/or smartness into houses/buildings.

⚡ Electrical contractors accommodate the shift to zero emission mobility (e-mobility)

- They are competent to install, operate and maintain electrical vehicles' charging points. They can also implement the prosumer model by integrating charging points with heat-pumps and rooftop solar panels in a building.
- The surge of electrical vehicles' sales means that more and more clients will need skilled electrical workers to fix and maintain this new type of car which goes beyond an auto mechanic's skillset.

➡ EuropeOn has released a study which shows that the shift towards e-mobility can lead to the net creation of around 200.000 jobs in Europe by 2030, of which 57% would be in the scope of electrical contractors[21]

⚡ Smart houses are no longer a utopia:

- Between ecological awareness, the rise in remote working and the fascination of many citizens for digital/robotic devices, there is a huge potential for installation and programming of new tools which will make buildings and homes both smarter and more comfortable.
- Many modern technologies can be connected together to make a house smart: rooftop solar, electric heat-pumps, automated lighting, charge points for electrical vehicles. Electrical infrastructures are the common backbone to these changes.

[20] <https://www.serce.fr/>

[21] EuropeOn (2018): Powering a new value chain in the automotive sector: The job potential of transport electrification – [LINK](#)

- In order to ensure the development and success of Smart Living, it will be key to address cybersecurity (see point 2.3).
- Some very advanced “Smart Houses” projects are already on show, such as a project launched by the German Association of electrical contractors, ZVEH: <https://www.e-haus-online.de/>



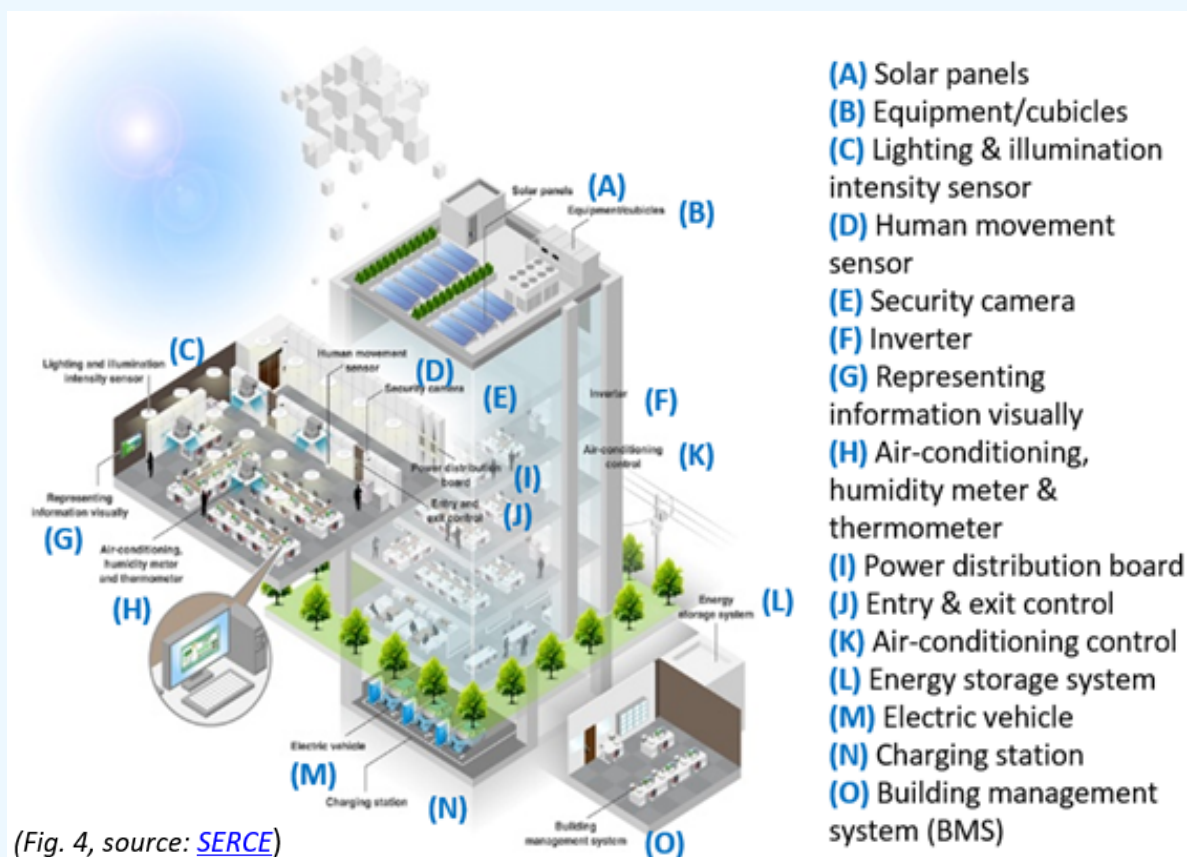
(Fig.3, source: [ZVEH](https://www.e-haus-online.de/))

⚡ Smart Buildings: the example of Smart Offices

- Office buildings serve a specific purpose, as they are meant to be busy during the day and empty during the night. This particularity makes data collection, uses and services all the more limitless.
- When it comes to smartness in office buildings, a crucial service is to lower the general carbon footprint of such buildings throughout their entire life cycle. This is achieved by making buildings responsive to both internal and external conditions, through sensors (see Fig.4.).
- Beyond carbon footprint considerations, analysing human flows can also help improving space management and productivity.

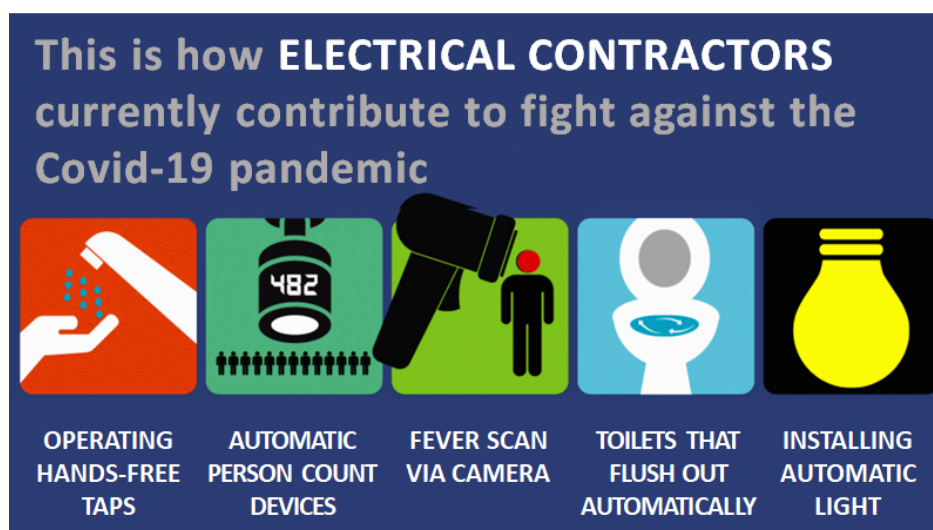
⚡ Data uses and services are limitless:

- All sorts of data can become valuable: data from smart meters, connected solar panels and heat pumps, fever scan, sensors, etc. The most obvious example is smart meters which are already installed and operated by electrical contractors: they should also provide data analysis of the energy consumption and efficiency/performance, potentially leading to new business opportunities.
- Predictive maintenance is also a growing activity, with virtuous effects on safety and longevity of technologies.



2.5. Containing the pandemic: contactless technologies are in the hands of electrical contractors

WHILE DOCTORS, NURSES AND ALL THE STAFF WORKING IN HOSPITALS AND LABS ARE ON THE FRONTLINE TO FIGHT COVID-19, THERE ARE WAYS IN WHICH ELECTRICAL CONTRACTORS CAN CONTRIBUTE TO CONTAINING THE PANDEMIC: CONTACTLESS TECHNOLOGIES.



(Fig. 5, source: [TEKNIQ Arbejdsgiverne](#))

Contactless technologies provide solutions to reduce the risk of contamination. Whether it is automatic lighting and heating systems, hands-free taps and toilets, automatic doors, the applications are endless.

The demand is quickly rising for these solutions. For example, automatic lighting sales have been multiplied by 3 to 6 in Denmark in 2020[22]. Beyond the health and safety, such contactless technologies can also contribute to energy management and energy efficiency.

Business opportunities for 2.5.

⚡ Electrical contractors are in an ideal position to market the installation of contactless technologies to their clients. Going contactless is a smart move for all sorts of buildings with extensive social interactions (offices and administration, schools, hospitals, malls, hotels, retirement residences, museums...). Contactless technologies will remain relevant even after Covid-10 (to slow down seasonal flu and to improve energy efficiency).

⚡ Innovations and creative ideas must be explored to contain the spread of diseases. Solutions such as germicidal UV light should be harnessed. Several electrical contractors' associations are currently exploring it.

2.6. On the road to recovery: ambitious public works in infrastructure call for electrical contractors' expertise

When confronted to massive economic crises, public authorities have historically often encouraged major public work projects in order to stimulate demand.

WHILE ELECTRICAL CONTRACTORS ARE USUALLY PORTRAYED AS WORKING IN HOMES AND LARGER BUILDINGS, THEY ALSO OFTEN TAKE AN ACTIVE PART IN INFRASTRUCTURE WORKS. THIS PART IS INCREASING UNDER THE INFLUENCE OF THE DIGITALISATION OF INFRASTRUCTURES.

Business opportunities for 2.6.

⚡ Public works related to telecom and fibre optic will benefit all segments of our increasingly digitalised society while providing more business opportunities for electrical contractors

- See point 2.3. on fibre optic

⚡ Roads and transport can be made smarter and more electrified with the expertise of electrical contractors

- See point 2.4. on e-mobility and charging infrastructures
- While a huge number of electrical vehicle models are now on the market and big players such as Volvo announced they planned that 100% of their car sales would be electric by 2030, road infrastructures should be renovated to be fit for this new era.
- Digitalisation brings a unique opportunity to boost intelligent transportation systems (ITS), from traffic management to better coordination of information and improved safety in roads and tunnels. 2021 will be the European Year of Rail, reminding decisionmakers that the electrification of rail still needs to be undertaken in order to decarbonise transport.
- Electrified road will be a pre-requisite for autonomous driving in the years to come.

Electrical contractors are the interface between electricity and the digitalisation of all infrastructures

- Smart grids must be deployed with the expertise of electrical contractors, to prevent blackout and take advantage of the flexibility of new decentralised and clean energy sources.
- All types of infrastructures can benefit from sensors and monitoring tools to improve knowledge, efficiency, maintenance and safety.

When reflecting on business opportunities since Covid, EuropeOn and its members also identified three major enablers for electrical contractors to stand at the forefront of a green and digital recovery: adapting working methods, attracting new workers and better engaging in public debates and with the value chain

2.7. New ways to work: since Covid-19, electrical contractors are developing best practices to make the most of their activity in every situation

This is not a business opportunity per se but reorganising work in a more digital, adaptable and efficient way will foster opportunities for the professionals ready to take a step forward.

New ways to work... on worksites (productivity, cooperation and digital processes)

When lockdown struck, trade associations have swiftly designed guidelines and visual communication documents so that all workers have a clear understanding of the new worksite rules. **This first test was generally successful: electrical professionals have demonstrated they can work with various mitigating measures, including face coverings.** This focus on flexibility will be pursued further. Some trade associations are considering applying lean management to their working methods[23].

Another very interesting finding regards productivity. While overall productivity on worksite was often negatively impacted by social distancing rules, **Loughborough University (UK) released a new study titled “COVID-19 and construction: Early lessons for a new normal?”[24] which actually shows improvements in productivity and team effectiveness**, for the following reasons:

- Construction workers prepared better and more detailed task planning, to avoid on-site interactions as much as possible,
- Social distancing led to more space, fewer people, and less overlap of trades in the workplace, which in turn reinforced individual productivity,
- Sanitary measures have meant less double handling of materials, also boosting productivity,
- More streamlined worker flow due to workers staggering their start times, resulting in less waste of working time.

These findings are corroborated by similar comments from other countries (especially Germany, Switzerland, Finland and Norway). Even though this is not a general rule, such temporary transformations provide good examples to reorganise workflows in the medium run.

More generally, the new constraints imposed by Covid-19 have sometimes resulted in better cooperation in the value chain. A good example is the creation of the Construction Industry Coronavirus Forum (CICV) in Scotland in 2020, with 50 Scottish organisations involved. The Forum's website freely provides many online resources such as guidance, case studies and webinars[25].

[23] Internal working document from FFIE

[24] COVID-19: Early lessons for a new normal – Loughborough University – 24 August 2020 ([LINK](#))

[25] <http://cicvforum.co.uk/>

Besides, more and more tasks in the construction process are being digitalised. It will become a pre-condition to master digital tools. A good example is BIM (Building Information Modelling), which is defined as a “shared digital representation of a built asset to facilitate design, construction and operation processes to form a reliable basis for decisions” (ISO 19650:2019). Its use is very likely to accelerate because of the post-Covid-19 restructuring of the sector[26].

New ways to work... from home

Obviously, most of electrical contractors' work cannot be done from home. Nonetheless, when activity was reduced during lockdown, some initiatives emerged and are worth mentioning here:

- **Trade associations and training providers proposed enhanced e-learning solutions.** This will have very positive effects as professionals who never had time for up-skilling got the “chance” to do so.

Sweden	Finland
In June 2020, Installatörsföretagen – the Swedish association of installers - signed an agreement with the trade union Elektrikerna to offer trainings during short-term layoffs, which has entered into force ²⁷ .	Since the beginning of the first lockdown, STUL – the Finnish association of installers – more than doubled its offer of online courses to its members (from 22 to 50) ²⁸ .

- With e-learning and e-meetings, digitalisation is spreading among electrical contractors and will help them improve their digital strategy (see points 2.3 and 2.4). Even after lockdown measures stopped, many meetings remain online, resulting in gain of time and better planning, while keeping safe.

Apart from e-learning, trade associations have developed new informative and collaborative online tools:

Belgium	Luxembourg	Austria
Since April, Techlink developed a “Corona stress test” for companies of the Installation sector, to assess the impact of Covid-19 on their business and prepare for the recovery.	The Federation of Craftsmen set up with other private stakeholders an online platform ²⁹ linking supply and demand for Safety equipment	The Chamber of Commerce (WKO) set up an Info Point, with a FAQ, a chatbot, as well a webpage ³⁰ to help workers know where to find on where to find masks

All in all, reforming working patterns is not easy but with 1.8 million professionals across Europe, electrical contractors comprise an important share of Construction professionals and can play a major role in the debate on productivity in the sector.

2.8. In tomorrow's world, the electrical contracting sector is becoming more attractive to new (and young) entrants

A virtuous circle exists between jobs growth and rising business opportunities. Meanwhile, attracting new workers remains a challenge in the electrical contracting sector. Indeed, such careers are often viewed as a painful or even low-skilled. And technical education suffers from an image problem, especially with parents who want to “aim higher” for their offspring.

[26] McKinsey & Company, “The next normal in construction”, June 2020

[27] <https://www.in.se/aktuell/nyheter/2020/06/fardigt-avtal-for-elektriker-gallande-utbildning-under-korttidspenning/#/>

[28] <https://www.stul.fi/en-english/>

[29] <http://epi-covid19.lu/>

[30] <https://www.wko.at/service/aussenwirtschaft/coronavirus-wirtschaftskammer-als-anlaufstelle.html>; <https://www.wko.at/service/faq-coronavirus-infos.html>; <https://www.wko.at/service/vera-chatbot-info.html>; <https://www.wko.at/service/bestellung-schutzmasken.html>

Nowadays, a great variety of trainings, with new curricula, are designed all over Europe. The “apprenticeship culture” is very strong among installers, especially in the electricity branch. In Denmark, companies in the technical installations industry have 25 apprentices per 100 skilled workers, compared to 15 in the construction sector[31]. On average, European apprentices are trained for 3-4 years.

Recent creative initiatives have been put in place, such as a French [web platform](#) to make electricity jobs more attractive, a Swedish humoristic series in [15 episodes on YouTube](#) for young professionals to discover new careers, a Dutch [YouTube series](#) for young people on circularity as well as a [weekly radio show](#), the development of online training for all electrical contractors across Europe during the Covid-related lockdowns, the participation in [EuroSkills](#) competitions, the building of a [Competence centre](#) working at the EU level in Luxembourg, and more. At the level of EuropeOn, the [#Skills4Climate campaign](#) aims to increase awareness on the need to improve climate-related skills and to attract new (young) workers to contribute to the green transition.

More and more [initiatives](#) are targeted to attract women in a still very male career path. The German association of electrical contractors, [ZVEH](#), reports an increase of 1,7% of apprentices (men and women) in 2019 compared to 2018. Looking only at women, the increase was of 15,4% that year. Besides, there is potential for re-skilling professionals from other sectors, for example when they already have digital skills.

It is key to change mindsets. Companies, trade association and schools must highlight the new assets of electrical contracting careers:

- **Going digital:** people interested in digitalisation, data, coding must join,
- **Fighting climate change:** electrification, energy management, integration of decentralised energy systems, e-mobility are where the future business opportunities lie,
- Careers in the sector are increasingly **diversified and transdisciplinary**,
- **Digitalisation and automation** make the jobs less painful than in the past,
- **Careers are purposeful:** professionals concretely switch on the energy transition and make people's daily lives more comfortable,
- **Careers are evolving:** over time, an electrician can access management positions,
- **Entrepreneurship:** individual companies and small companies comprise a very high share of the sector, enabling professionals to be their own boss,
- **Salary conditions are attractive:** apprentices get paid and companies are competing to attract the best talents.

2.9. With increased visibility of electrical contractors in public debates and in the value chain, their key role can go one step further

DURING THE COVID-19 CRISIS, ELECTRICAL CONTRACTING ASSOCIATIONS COOPERATED MORE CLOSELY WITH POLICYMAKERS IN PUBLIC DEBATES, TASKFORCES AND SO ON.

This has not always been the case in the past, as public-private consultations with the Construction Sector were often limited to a few big builders.

It is important to strengthen the new bonds tied since Covid-19 and to emphasise that:

- There are almost **2 million electrical contractors across Europe**,
- Policymakers and citizens have become more aware than ever of the importance of electricity supply and connectivity: electrical contractors have usually but not systematically been **considered as an “essential service” during lockdown periods**,
- With buildings and cities becoming smarter, **electrical contractors will have the pivotal role of integrating all devices in the built environment**,

[31] [TEKNIQ Arbejdsgiverne](#)

- Electrical contractors directly deal with end-users and can convey to decisionmakers the feedback from clients pertaining to buildings, energy management, energy transition, and more. **They can also have a “triggering effect” on initiating renovations or replacing polluting installations.** As noted in a recent report from the European Commission: “(...) *installers appear to be a group whose influence on energy renovation decision making is largely underestimated. (...) They are also the persons consumers listen to when deciding about the extent or depth of energy efficiency measures.*”[32]”

Although this report aims to focus on the positive ways to address the Covid-19 situation, it is important to also be aware of several areas of vigilance that could undermine the success of the business opportunities we identified above.

III. AREAS OF VIGILANCE

3.1. Will a fast recovery be preferred to a green recovery?

Despite the significant pledges to accelerate the transition to a greener and more digital economy in Europe, it is legitimate to wonder whether concrete and sufficient action will be taken in this sense, because it means arbitrating between two economic pathways.

At the time of writing this report, these tensions are very explicitly at the core of the ongoing debates to adopt the EU multiannual financial framework for 2021-2026 and the Recovery Package.

THERE ARE NEGATIVE SIGNALS: AS STATED BY THE INTERNATIONAL ENERGY AGENCY IN APRIL 2020, “THE CORONAVIRUS PANDEMIC COULD DERAIL RENEWABLE ENERGY’S PROGRESS” ALL OVER THE WORLD[33].

3.2. The electrical contracting sector mostly comprises SMEs and VSEs which are particularly sensitive to crises

VERY SMALL, SMALL AND MEDIUM ENTERPRISES (VSES AND SMES) ACCOUNT FOR A LARGE SHARE OF ELECTRICAL ASSOCIATIONS IN EUROPE – UP TO 90% IN SOME COUNTRIES.

Their size and specific organisational features make them more vulnerable to crises. It is clearly evidenced in the Fall 2020 Survey of the German association of electrical contractors, ZVEH: although it is remarkable that the level of optimism remains rather high in this sector[34], only 60.3% of companies with up to 4 employees believe that their economic situation remains good. The percentage is of 67.1 for companies with 10-19 and 74.8 for companies with over 20 employees[35]. In particular, liquidities are a daily concern for small companies which usually have a limited safety net[36].

Smaller companies mainly work on individual houses. Even when they were authorised to work during lockdown, the fear of contamination has motivated many households to postpone, if not cancel, renovation/installation orders, dramatically impacting SMEs’ businesses.

[32] Comprehensive study of building energy renovation activities and the uptake of nearly zero-energy buildings in the EU – European Commission (November 2019) [LINK](#)

[33] The coronavirus pandemic could derail renewable energy’s progress. Governments can help – International Energy Agency (April 2020) [LINK](#)

[34] Compared to, for instance, the Fall Survey on “confidence” conducted by SMEunited showing that 54.6% of European SMEs remain confident (which is even lower than the historic low of the 2009 financial crisis) - [LINK](#)

[35] Herbst-Konjunkturbefragung (2020), ZVEH

[36] The Construction Industry Coronavirus Forum (CICV) in Scotland released a new survey showing that cashflow had dried up for nearly 80% of construction firms in Scotland in April, due to the impact of Covid-19: <https://www.select.org.uk/survey-cicv-cashflow/>

Most national governments have been very quick to implement exceptional measures to help companies, starting with the smaller ones. A challenge for national associations is now to accompany companies with their support claims and help them using the latter in an unpredictable world.

Finally, it is important to reassert that, in a changing world, up-skilling will be detrimental to generate new business opportunities. Again, SMEs and VSEs face specific obstacles because they lack the financial and time resources to access skilling programmes. Across Europe, 25% of SMEs identify the access to new skills and better skilled workers as their most important problem[37].

3.3. The rise of e-commerce and DIY could undermine electrical contractors' good work

With lockdowns and the fear of households to let workers come into their houses, the electrical sector, as many other sectors, has witnessed a rise in e-commerce and purchase of DIY "do-it-yourself" electrical/connected appliances installed by consumers.

Electrical contractors remain vigilant so that this trend does not undermine their business opportunities. **They must all at once demonstrate the added value of their expertise and warn clients on the safety/security issues raised by such self-installation of DIY devices which often suffer from sub-standards, poor quality, incompatibility of components, etc.**

3.4. Electrical contractors' short-term concern: slowdown of demand and shortages in the supply chain

After the first shock of Covid-19 on the European construction sector, where activity fell by 15.7% in relation to 2019, "*there is likely to be a lasting impact on the sector*[38]", the EU Commission commented. In the energy sector alone, investment has dropped by 18% in the world in 2020[39]. Energy efficiency investments have dropped by 12% in the EU in 2020[40].

WHILE IN 2020 MANY PROFESSIONALS COULD RELY ON ORDERS THAT HAD BEEN CONTRACTED BEFORE COVID-19, THEY ARE NOW NOTICING A SLOW-DOWN IN ORDER BOOKS AS WELL AS POSTPONEMENTS[41].

Another worrisome signal is the downturn in public procurement. In France, this drop could, on its own, provoke a decrease by 20% of the turnover of interested private actors[42]. Furthermore, several European governments have rolled out new "green" measures to tackle the Covid-19 crisis which are very limited in time (1 year or even just 6 months). This time period is too short for potential clients to claim it and for companies to adapt their services, or even their training, to it.

Finally, on the demand-side, another preoccupation regards the profound crisis of office buildings, which represents a significant part of many electrical contractors' turnover.

Other issues challenge the business model of electrical contracting companies, such as:

- **Extra-costs** that have emerged since the Covid crisis, because of sanitary and social-distancing rules, are usually estimated as +10%.
- The sudden appearance of Covid-19 has raised new issues on worksites between contractors and sub-contractors, leading to a **rise in disputes**, especially on costs.

[37] Survey on the Access to Finance of Enterprises (SAFE) - 20th round – European Central Bank (May 2019)

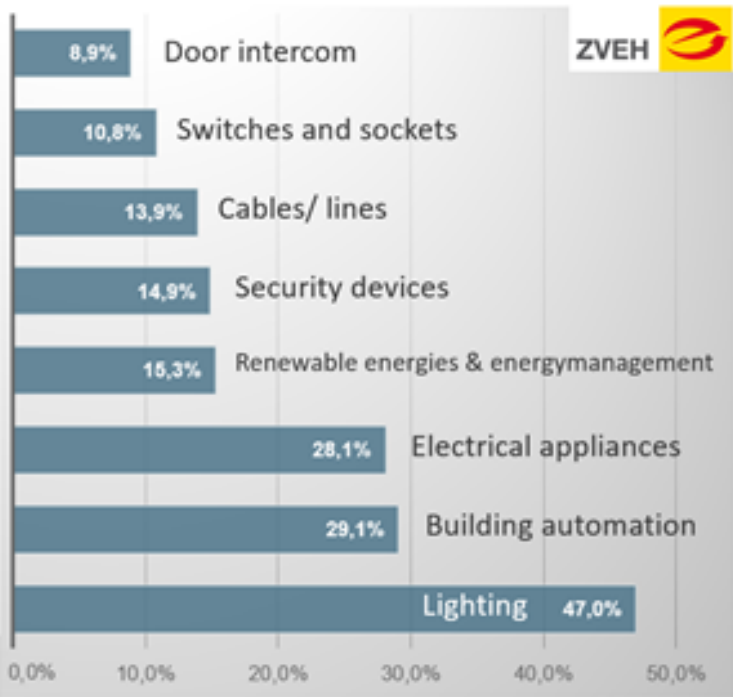
[38] A Renovation Wave for Europe -greening our buildings, creating jobs, improving lives – European Commission Communication (14 October 2020) [LINK](#)

[39] World Energy Outlook 2020 – International Energy Agency – [LINK](#)

[40] A Renovation Wave for Europe (14 October 2020) [LINK](#)

[41] EuropeOn internal note

[42] <https://www.fnpt.fr/>



- Most countries have witnessed (so far) limited **shortages in the supply chain**, but this is not the case of all countries. In Germany, 30.7% of companies declared in March 2020 having supply shortages. This figure rose to 43.8% in May. The most significant bottlenecks concern lights, automation and electrical appliances (see Fig.6.) In Luxembourg, 80% of the companies registered at the Fédération des Artisans (Craftsmen Federation) report disruptions from their suppliers[43].

(Fig.6: Shortages in the supply chain reported by German Electrical contractors – Source: ZVEH, May 2020)

3.5. Electrical contractors’ medium-term concern: shortages in new and skilled workers

Many recruitments are being postponed due to lack of predictability for the coming year(s). Such a delay is detrimental both to electrical contractors seeking to meet a growing demand and to recovery efforts.

THE ELECTRICAL CONTRACTING SECTOR HAS BEEN CHALLENGED FOR YEARS BY A GAP BETWEEN THE NUMBER OF WORKERS AND THE VOLUME OF JOB OPPORTUNITIES, BUT THIS IS EXACERBATED BY THE COVID-19 CRISIS.

The apprenticeship culture, which is a pillar of the electrical contracting sector all around Europe, is also put to the test. As expressed by Commission Vice-President Valdis Dombrovskis when presenting the new EU Skills Agenda (1st of July 2020): “apprenticeship has been a big victim of Covid-19”. Clearly, electrical apprenticeship can hardly be done online. Trade associations and governments are addressing this crucial issue for the new generation of workers but this must remain an area of vigilance.

<p>United Kingdom – good practice from a trade association⁴⁴</p> <p>In order to mitigate the risk for current apprentices not to be able to complete their apprenticeship, ECA has taken several measures:</p> <ol style="list-style-type: none">1. guidance sheets on how to work as an apprentice since Covid-19 and2. new support service (where apprentices can be “loaned” and transferred from one company to the other)	<p>Denmark – strong public support for apprentices⁴⁵</p> <p>The Danish government has been very swift to react and has implemented generous and efficient schemes to retain apprentices, resulting in an increase by 1.7% of electrical apprentices in 2020 when compared to 2019.</p>
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[43] D’Handwierk October 2020 – Fédération des artisans – [LINK](#)
[44] <https://www.ecatoday.co.uk/news/763/ECA-launches-apprentice-support-service>
[45] <https://www.tekniq.dk/presse/pressemeddelelser/2020/august/installatoerer-har-faaet-vendt-laelingenetduren>
January 2021 - Public version

Conclusion

While the current times are characterised by high doubts and unpredictability, EuropeOn's report humbly tries to identify some of the key trends where electrical contractors can develop business opportunities which will contribute to restart European economies on greener and more digital grounds.

The report first identifies 3 particularly salient societal priorities since Covid-19:

- mitigating **climate change** with a **green recovery**,
- improving **indoor life quality**,
- transforming **ways of working**.

Building on these priorities, it demonstrates the relevance of electrical contractors in tomorrow's world, by showing that they are at the forefront of a change for good, with 6 main areas of business opportunities:

- developing their **service offer and skills** to make the most of **upcoming recovery plans**,
- positioning themselves as **integrators** who demonstrate the valuable know-how to address all 3 rising societal priorities,
- being at the forefront of **digital change**,
- contributing to combining **digital & green transitions**,
- containing the pandemic with **contactless technologies**,
- improving **infrastructure** on the road to recovery.

These issues are rising in the aftermath of Covid-19 and can help electrical contractors expand business opportunities while proactively positioning themselves as integrators at the core of value chains in construction, mobility, energy and digitalisation.

But to succeed, 3 main enablers are needed...

- learning from the post-Covid **ways to work**,
- attracting **new (young) workers**,
- increasing **visibility** in public affairs and along the value chain.

...while 5 main areas of vigilance must not be overlooked:

- A **fast recovery** could be preferred to a green recovery (risk of a "quick fix"),
- **SMEs and VSEs** comprise most of the sector and are particularly sensitive to crises,
- Rise of e-commerce & **DIY** could undermine our good work,
- Risk of a **slowdown of demand and shortages** in the supply chain,
- Risk of **shortages in new and skilled workers**.

The collective effort which was put into this report is a first step which will hopefully trigger more reflection at all levels in order to diversify and expand business opportunities in the sector while increasing the sector's contribution to a climate neutral and jobs-driven Europe. The Covid-19 crisis puts electrical contractors at a turning point. They can get bankrupted, they can resist but they can also up their game:

Electrical contractors upping their game:

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ELECTRICAL CONTRACTORS ASSOCIATION

- ⚡ Influencing and positioning their sector
- ⚡ Getting closer to clients and decisionmakers
- ⚡ Stopping to behave like a sub-contractor and starting to lead
- ⚡ Improving (customer & service) soft skills
- ⚡ Broadening their hard skills: digital, green, etc.
- ⚡ Updating apprenticeships and lifelong learning
- ⚡ Making their sector attractive to people

⚡ **Improving sector businesses & profitability**

With the right conditions, propelled both by entrepreneurs and public authorities, electrical contractors can be leading players in restarting European economies, with a greener and more sustainable future. Now that we have identified the business opportunities which ought to be explored, below is a list of policy asks which, if implemented by policymakers across Europe, will create the adequate policy conditions to turn opportunity into reality.

IV. POLICY ASKS

In order to switch on a green and digital recovery and thus foster business opportunities for the electrical contracting sector, EuropeOn calls on policymakers to:

Policy asks based on “2.1. Electrical contractors are upskilling and developing their service offer in the context of upcoming recovery plans”

- i. Ensure that skilling programmes for services linked to renewables and energy efficiency are covered in each national recovery plan**
- ii. Lead by example through “green” and “smart” public procurement**

Policy asks based on “2.2. Electrical contractors are integrators, providing services to address all three rising societal priorities”:

- iii. Ensure grid operators or utilities cannot obstruct competitors in the market of energy services**, for example by forcing consumers to buy a product which is artificially related to a more popular, in-demand product

Policy asks based on 2.3. “ Tomorrow’s world will be digital and electrical contractors are at the forefront of the digital change”:

- iv. Ensure that skilling programmes in digitalisation for electrical contractors, including in cyber-security and BIM, are covered in each national recovery plan**
- v. Deploy and upgrade fibre cable infrastructures**, as a precondition to roll out 5G and to improve Europe’s digitalisation

Policy asks based on “2.4. Electrical contractors empower consumers by combining digital and energy transitions”:

- vi. Make sure that public data for buildings, energy grids, installations etc. are made available all over Europe in an open, standardised and readable format**

Policy asks based on “2.5. Containing the pandemic: contactless technologies are in the hands of electrical contractors”:

- vii. Lead by example by installing contactless devices in public space and public administration**

Policy asks based on “2.6. On the road to recovery: ambitious public works in infrastructure calls for electrical contractors’ expertise”:

- viii. Trigger the demand-side with ambitious public works (also see ask v) and through “green” and “smart” public procurement**
- ix. In public procurement and in the current crisis context, public purchasers should both:**
 - Allow for more flexibility when requiring daily fees, due to delays and project stoppages
 - Work on reducing the delays in payments to suppliers and contractors

Policy asks based on “2.8. In tomorrow’s world, the electrical contracting sector is becoming more attractive to new (and young) entrants”:

x. Support the design and communication of Europe-wide media campaigns to attract new workers (young people, workers wishing to re and up-skill, with a focus on women) into a fast-evolving and varied trade

Policy asks based on “2.9. With increased visibility of electrical contractors in public debates and in the value chain, their key role can go one step further”:

xi. Systematically include the electrical contracting sector into public dialogue and taskforces for recovery and the energy transition (building and renovation, e-mobility, infrastructures...)

In order to address the areas of vigilance which could jeopardise a green and digital recovery EuropeOn calls on policymakers to:

Policy asks based on “3.1. Will a fast recovery be preferred to a green recovery?”:

xii. Take binding commitments in each national recovery plan to phase out from fossil fuels and decarbonise the economy while creating future-proof jobs:

- implement a comprehensive and ambitious Renovation Wave with strong national incentives for smart renovation, installation of PV, BACS and sustainable lightning, scrappage schemes for electric heat-pumps. To ensure capacity and security, incentivise the renovation of ageing electrical systems in the built environment,
- Accompany the current rise in EV sales by deploying more EV charging points,
- Continue with the existing incentives for PV installation & other prosumer schemes at national level.

xiii. Need for clear policy direction with steady and growing opportunities instead of “stop and go” policies. It is crucial in order to ensure visibility to companies

Policy asks based on “3.2. The electrical contracting sector mostly comprises SMEs and VSEs which are particularly sensitive to crises”:

xiv. Regularly assess the situation of SMEs and VSEs since the Covid-19 outbreak. Many policies have been deployed shortly after the outbreak but will be needed in the longer run

xv. In the event of further lockdowns, electrical contractors must be recognised as an essential service in all countries across Europe – this has not always been the case (for example in some German Länder and the Netherlands)

Policy asks based on “3.4. Electrical contractors’ short-term concern: slowdown of demand and shortages in the supply chain”:

xvi. Encourage maintenance work on empty (public administration) buildings under lockdown. The same applies to reduced traffic on roads which can be a good occasion to upgrade signage, streetlights, etc.

Policy asks based on “3.5. Electrical contractors’ medium-term concern: shortages in new and skilled workers”:

xvii. Prevent the enrollment of apprentices from plummeting - some countries have implemented interesting policies already and should be spread

xviii. Facilitate re-skilling from other sectors (which are letting go professionals) to the construction and installation sector

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Contact:

EuropeOn - THE EUROPEAN ASSOCIATION OF ELECTRICAL CONTRACTORS

info@europe-on.org

Rond-Point Schuman 2-4, 1040 Brussels

www.europe-on.org

@EuropeOn_EU